

Serial No.: 09/553,374 filed April 20, 2000  
Amendment dated: August 21, 2003  
Reply to Office Action of: May 13, 2003  
Atty. Docket No.: GJH-0019 (P1998J107A)

#### REMARKS

Claim 1 has been amended to make the language more consistent throughout the claim.

Claim 1 has also been amended to include the limitation that the liquid product stream produced in step (h) of claim 1 is subsequently combined with at least one of (i) one or more lubricity aid, (ii) one or more viscosity modifier, (iii) one or more antioxidant, (iv) one or more cetane improver, (v) one or more dispersant, (vi) one or more cold flow improver, (vii) one or more metals deactivator, (viii) one or more corrosion inhibitor, (ix) one or more detergent, and (x) one or more distillate or upgraded distillate.

Support for the amendment to Claim 1 can be found in original Claim 24 as filed and on page 6, first paragraph of the instant specification.

#### REJECTION UNDER 35 U.S.C. 102(b)/35 U.S.C. 103(a)

Claims 1-7, 9-15, and 18-26 have been rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as being obvious over United States Patent Number 5,292,428, Harrison et al. (Harrison).

#### EXAMINER'S POSITION

The Examiner takes the position that Harrison teaches a process wherein a hydrocarbon feedstock is passed through two or more hydrodesulfurization zones connected in a series. Each of these two or more hydrodesulfurization zones contains a packed bed of solid catalyst wherein the liquid is passed from a first zone to the next until

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hydrodesulfurization zone other than the first zone. Hydrogen-containing gas is recovered from a subsequent hydrodesulfurization zone; target sulfur levels, etc. are obtained. The Examiner believes that Harrison et al. teaches a process and composition that reasonably appears to be either the same or an obvious variation of the instantly claimed product and composition.

#### APPLICANTS' POSITION

As amended, Claim 1 requires that the liquid product stream produced in step (h) of claim 1 is subsequently combined with at least one of (i) one or more lubricity aid, (ii) one or more viscosity modifier, (iii) one or more antioxidant, (iv) one or more cetane improver, (v) one or more dispersant, (vi) one or more cold flow improver, (vii) one or more metals deactivator, (viii) one or more corrosion inhibitor, (ix) one or more detergent, and (x) one or more distillate or upgraded distillate.

Harrison does not suggest nor claim to combine the liquid product produced therein with any of the above. Thus, it would not have been obvious to one having ordinary skill in the art and knowledge of Harrison to combine the liquid product produced therein with at least one of (i) one or more lubricity aid, (ii) one or more viscosity modifier, (iii) one or more antioxidant, (iv) one or more cetane improver, (v) one or more dispersant, (vi) one or more cold flow improver, (vii) one or more metals deactivator, (viii) one or more corrosion inhibitor, (ix) one or more detergent, and (x) one or more distillate or upgraded distillate.

The Examiner is requested to reconsider and withdraw this rejection.

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### **REJECTION UNDER 35 U.S.C. 103(a)**

Claims 16 and 17 have been rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent Number 5,292,428, Harrison et al. (Harrison) in view of United States Patent Number 5,114,562, Haun et al. (Haun).

### **EXAMINER'S POSITION**

Harrison is relied on by the Examiner as above but differs from the instant claims in not teaching a countercurrent aromatics hydrogenation stage or stripping of the liquid stage prior to the aromatics stage.

Haun is cited as teaching countercurrent aromatics hydrogenation and stripping of the liquid stage prior to the aromatics stage. The Examiner further states that Haun teaches a mineral oil conversion process that includes hydrosulfurization and hydrogenation steps performed in separate reaction zones whereas the instantly claimed invention relates to the hydrogenation of distillate petroleum fractions to produce low sulfur content products. Desulfurization conditions employed are those customarily employed in the art for desulfurization of equivalent feedstocks and the effluent stream of the desulfurization zone is stripped with a stream of hydrogen-rich gas prior to being fed to the hydrogenation zone. The Examiner also mentions that the vapor phase stream from the hydrogenation step in Haun is highly rich in hydrogen and relatively low in hydrogen sulfide and is "cascaded" to the hydrosulfurization zone and that hydrogen-

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rich gas may flow countercurrent to the liquid-phase hydrocarbons through one or more reaction zones.

#### **APPLICANTS' POSITION**

Claims 16 and 17 are dependent claims, and therefore, include all of the limitations of the claims from which they depend. Therefore, Claims 16 and 17 include all of the limitations of independent Claim 1. More importantly, Claims 16 and 17 include the limitation that the liquid product produced in step (h) of Claim 1 is combined with at least one of (i) one or more lubricity aid, (ii) one or more viscosity modifier, (iii) one or more antioxidant, (iv) one or more cetane improver, (v) one or more dispersant, (vi) one or more cold flow improver, (vii) one or more metals deactivator, (viii) one or more corrosion inhibitor, (ix) one or more detergent, and (x) one or more distillate or upgraded distillate.

As discussed above, it would not have been obvious to one having ordinary skill in the art and knowledge of Harrison to combine the liquid product produced therein with at least one of (i) one or more lubricity aid, (ii) one or more viscosity modifier, (iii) one or more antioxidant, (iv) one or more cetane improver, (v) one or more dispersant, (vi) one or more cold flow improver, (vii) one or more metals deactivator, (viii) one or more corrosion inhibitor, (ix) one or more detergent, and (x) one or more distillate or upgraded distillate because neither Harrison nor Haun, alone or in combination, suggest nor claim to combine the liquid product produced therein with any of the above.

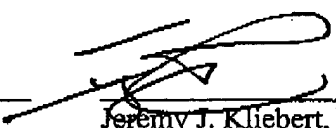
Therefore, the Examiner is requested to reconsider and withdraw this rejection.

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Based on the preceding arguments, amendments, the Examiner is requested to reconsider and withdraw the above rejections and pass this application to allowance. The Examiner is encouraged to contact applicant's attorney should the Examiner wish to discuss this application further.

Respectfully submitted:

Date: 8/21/03

  
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